911 P-5

October 20, 1981

Mr. Laurence Peterson
Environmental Quality Division
State of Washington
Department of Ecology
East 103 Indiana
Spokane, Washington 99207

Dear Mr. Peterson:

I am responding to your September 21, 1981 letter addressed to Mr. John Zillich. I will restate the pertinent points of the letter (in italics) and address the issues separately.

Ground Water Elevations

The elevations assigned well numbers 5, 6, and 7 on Figure 3, Page 14, of the report do not equate to those provided on Page 2 of Appendix 2. This disparity needs to be clarified. The source and time frames relative to these data should be provided. The project name in Appendix 2 appears to be incorrect.

The ground water elevations on Figure 3 are measured elevations. Appendix 2 was done by our hydrologist in Coeur d'Alene and the ground water elevations were inadvertently recorded as ground surface elevations on the working sheet in the appendix. The appendix has been corrected.

The source of the data was original surveying and ground water measurements done for this study. The elevations were measured on April 24, 1981 as indicated in paragraph 2 on Page 12.

The name of the project has been changed in Appendix 2.

Ground Water Elevations

Additionally, the report does not acknowledge the significance of a water mound from the Tomlinson Dairy pond if it exists as depicted by contour lines in Figure 3. If that large mounding effect is indeed present as a result of the lagoon, it should be anticipated that cones of depressions associated with the large irrigation wells in the area would also be present. This could have a profound seasonal effect on flow direction.



Tomlinson Dairy Pond

The significance of the water mound was discussed on Page 13 of the report. The well is only a few ten's of feet away from the pond shoreline. The conclusion was that the ridge indicated on the figure is probably not real i.e., there may be some elevated ground water near the pond but it probably falls off rapidly the further one travels away from the pond. As far as depressions related to pumping is concerned, most wells had not been started up for the spring irrigation season when the readings were taken. The only operating wells were Wells No. 2, 3, and 8. Future seasonal changes in ground water flow can be measured at the new monitoring wells. The ground water elevations are correct, the contours show the general flow in the vicinity of the site, and are adequate for this purpose.

## Lateral Movement of Waste Water

The statement on Page 22 of the report "...saturated conditions do not exist..." and repeated in the cover letter does not appear to answer the intent of Question 1., b. of my letter of February 18, 1981. If you are concluding that lagoon percolate is not reaching and/or affecting the old industrial waste site, the rationale is not presented for that determination. If this conclusion cannot be drawn, we are deficient in information on an important issue. This may be a matter best deferred to the ground water quality monitoring program.

The intent of item 1.,b. and 2. of your original letter in interpreted to mean what is the potential for lagoon percolate moving laterally and then mobilizing hazardous waste materials so they enter the ground water. The essence of these results discussed on Pages 5 and 6 is that saturated conditions do not exist at the hazardous waste sites. It is implied in this conclusion that saturated conditions would have to exist to provide the movement of significant quantities of hazardous wastes. However, we agree that what is important is the quality of the ground water and we will proceed with ground water monitoring.

## Rising Ground Water Levels

The discussion on this subject is conclusive and positive concerning the current situation. The ground water table is being lowered due to increasing withdrawal. However, the possibility of development of the East High Canal should be recognized as having a potential future impact.

The second paragraph of Page 21 describes future development and includes the impact of development of the East High Canal.

## Ground Water Monitoring Program

Overall it seems the proposed program is not adequate to provide the degree of sensitivity needed. If we can accept the concept of percolating lagoons, a monitoring program must be in place that provides the highest degree of detection capabilities.

Mr. Laurence Peterson Page 3 October 20, 1981

The number of wells in the ground water monitoring program has been revised. This item is presented on Page 24 of the report.

Engineering Report on Existing Facility

The information provided is not sufficient to allow permitting the facility. Even assuming a monitoring program indicates there is no degradation of ground water, more detail is required before we could permit the existing facility.

Since this report was written, approximately 90% of the sewage formerly disposed of at the landfill lagoons is now being disposed of directly at the Hanford Site. The remaining septic tank pumpings will now be disposed of by incorporating this material into the fill. This will be done in compliance with the Washington State Department of Ecology Regulation Relating to Minimum Functional Standards for Solid Waste Handling, Chapter 173-301, part 301, "(3) septic tank pumpings and sewage treatment plant sludge disposal shall be determined on a case-by-case basis. Generally, a ratio of sludge or pumpings to other solid waste of 1 to 4 or 1 to 5, such that the moisture content does not exceed 40% will give satisfactory disposal results."

We never intended to write an "engineering report" per WAC 173-240-060 for these lagoons. Because of the change in operation I assume an engineering report is not needed beyond what has been completed and I no longer need a permit from the Department of Ecology.

A revised report is included for your review. I am in hopes you can meet with Mr. Zillich, Mr. Kamberg and myself to discuss and hopefully approve the proposed monitoring program at 11:00 A.M., Monday, October 26, 1981, at the J-U-B Engineers, Inc. office.

Sincerely,

L. Dietrich
Pasco Sanitary Landfill

LD/er

cc: Larry Kamberg

Benton-Franklin Health Department